Marine Safety Office (MSO) Valdez
Y2K Business Continuity Contingency Plan Exercise
Conducted September 24 through 30, 1999

Executive Summary

United States Coast Guard (USCG) Marine Safety Office (MSO) Valdez experienced an actual outage at a critical remote site on September 24, 1999. There was a generator system casualty at the radar and microwave site on Potato Point. The three service generators at this location provide the primary power to the site, there is no commercial power. If there are problems and the generators go off-line, these generators can be restarted from the MSO. In this circumstance, generators could not be restarted and MSO personnel were deployed to the site to manually restart the generators. The replacement of the generators is now being pursued and new generators will be available for the Y2K roll over period.

The Vessel Traffic System (VTS) did not experience any failures; however, the loss of the Potato Point site prevented radar images of certain sectors from being received at the Vessel Traffic Center (VTC). Although other radar sites provide come overlapping coverage, watchstanders utilized manual procedures during the outage to track vessel positions in the affected sectors. The information from the Automated Independent Surveillance (AIS) equipment was also used as a means of back-up to the radar data as it provides position, course, and speed directly from equipment installed in the vessel.

The casualty period lasted 7 days. During this time, MSO Valdez exercised various aspects of the unit's Business Continuity and Contingency Plan (BCCP) including the deployment of personnel to remote sites and the use of afloat assets as back-up radar sites. Confidence is high that any casualty to the VTS can be overcome by manning remote sites and/or USCG and industry vessels.

MSO Valdez personnel also participated in Y2K exercises with the Alyeska Pipeline Service Company on November 11, 1999. This organization operates the Alaska pipeline, transporting over 1 million barrels of crude oil per day. MSO Valdez personnel participated in the Alyeska tabletop exercise of critical Y2K issues as representatives of the USCG Captain of the Port (COTP).

Background

MSO Valdez has developed a BCCP to identify specific contingency plans and procedures that can be implemented in the event of Y2K related failures and other emergencies. The plan contains strategies to mitigate risks and documents procedures and assignments to enable emergency response while continuing normal operations. The BCCP addresses all aspects of MSO operations including communication with unit personnel, with other USCG units, and with other port stakeholders; back-up communications equipment such as VHF-FM radios; back-up power sources for facilities and equipment such as batteries and emergency generators; staffing; supply and logistics; and personal services such as food and berthing for watchstanders.

The primary purpose of the plan is to ensure readiness for Y2K critical dates; however, the planning provides an excellent framework to address any emergency situation.

Step 1 – Establish Major Objectives

The initial objective of MSO Valdez was to utilize the Potato Point generator casualty as a means to exercise the unit's BCCP. For the MSO's participation in the Alyeska exercise, the objective was to evaluate Y2K failure scenarios and identify what actions and controls would be taken by the USCG as part of its COTP function. The use of the Y2K Risk Assessment Matrix was specifically addressed.

Step 2 – Identify Exercise Participants

Participants are listed in the table below. The participants include both those involved in the generator casualty and those involved in the Alyeska exercise.

Participant Type	Participant
Port Stakeholders	
	Alyeska Pipeline Service Company
	Numerous Other Stakeholders Invited by Alyeska
	Pioneer Service
	Taps Tankers
United States Coast Guard	
	Marine Safety Office (MSO), Valdez
	Vessel Traffic Service (VTS), Valdez
	USCGC Mustang
	District 17

Table 1 – MSO Valdez Exercise Participants

Step 3 – Develop Exercise Scenario(s)

The MSO Valdez exercise consisted of the following scenario:

- ***Generator Casualty*** – This scenario involved actual failures of the service generators located at a critical radar and microwave relay site approximately 45 minutes in distance from the MSO. MSO Valdez personnel implemented contingency plans as defined in the unit's Y2K BCCP to restore operations to the site and to ensure that the VTC could continue operations despite the lack of radar data.

- ***Alyeska Tabletop Exercise*** – This exercise involved the discussion of numerous Y2K scenarios that occur at or near midnight on December 31, 1999 and in the hours following the millennium change. Approximately 200 port stakeholder representatives were in attendance. MSO personnel discussed the scenarios in terms of the controls that would be imposed by the COTP on certain vessels and waterfront facilities based on the data collected for the Y2K Risk Assessment Matrix and the actual on-scene conditions. Scenarios included:

- Power Outages Throughout U.S. Necessitate a Reduction in Oil Flow
- Failures Occur in the Computerized Control System Requiring Manual Operations
- Earthquake Hits PWS Area
- Failures Occur at Some Pumping Stations Requiring Manual Operations and Verbal Communications to Report Pump and Flow Status
- Tanker at Berth has Generator Problems
- Media Hound Port Stakeholders for Y2K Situation Information

Step 4 – Conduct Exercise Activities

This section presents the primary MSO Valdez exercise activities.

- ***Generator Casualty***
  - MSO Valdez experienced an actual failure of the service generators located at Potato Point.
  - Generators could not be restarted remotely so personnel were deployed to the site. Generators could not be restarted locally and it was determined that the generators required repair or replacement.
  - The MSO added two command personnel to the standard assignment of 3 personnel per shift to run command and control. The use of additional staff will also be implemented during the Y2K roll over.
  - The MSO deployed VTC watchstanders on CG and industry vessels as a means to continue the vessel management function. This tested the ability of the MSO to continue to direct and advise vessels in the event that key systems and/or sites critical to VTS suffer failures.
- ***Alyeska Tabletop Exercise***
  - The scenarios were verbally identified to the players one event at a time.
  - Each event was then addressed by the players that would likely be impacted.
  - The event and the potential solutions were then open for group discussion.

Step 5 – Conduct Post Exercise Analysis

The results of the post exercise analysis are provided in the table below.

No.	Observation/Explanation	Lesson Learned	Recommended Action
1	Transportation is required to reach remote sites.	There are other options besides the CG to transport MSO personnel to remote sites.	Coordinate with Alyeska and tug companies to discuss alternative transportation to key sites. Consider staging perssonel at key sites prior to the Y2K roll over.
2	Outages may affect ability to send radar data feeds to VTS.	In the event of an outage, floating assets can be used to relay information between sites. VTS personnel can be deployed to the ships to continue vessel traffic management.	MSO Valdez has successfully deployed a patrol boat and buoy tender as a test of this contingency plan. Also, VTS watchstanders have been deployed on both CG and industry vessels in support of continued operations during a casualty.

Table 2 – MSO Valdez Exercise Results

For More Information

Contact the USCG Representatives

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District 17: http://www.uscg.mil/d17/uscgd17.html